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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/977,543

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Matthew M. Persohn

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03/05/2003

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EXAMINER

DUNWOODY, AARON M

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,543

Applicant(s)

PERSOHN ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6. 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

Claims 20 and 23-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 30, 68, 230. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 4951974, Schabert et al.

In regards to claim 1, Schabert et al discloses a coupling assembly, comprising a first member (15) having an exterior surface, the exterior surface including at least one engagement feature (21); and a second member (23) having a portion for receiving a

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portion of the first member, the receiving portion having at least one interior surface that includes at least one locking feature (24) configured to mate with the engagement feature of the first member to substantially prevent rotation of the first member relative to the second member during connection thereto.

In regards to claim 2, Schabert et al discloses the engagement feature being defined by at least one protrusion in the exterior surface of the first member, the protrusion extending outward from a base reference point.

In regards to claim 3, Schabert et al discloses the locking feature being defined by at least one interruption in the interior surface of the receiving portion, the interruption extending outward with respect to the base point.

In regards to claim 4, Schabert et al discloses the engagement and locking features being received in the corresponding protrusion and interruption of the opposing member to create a radial interference.

In regards to claim 5, Schabert et al discloses there being a plurality of protrusions and interruptions, the protrusions and the interruptions located on the respective members such that there is at least one orientation, wherein the members may fully engage by way of a mating of the protrusions and the interruptions.

In regards to claim 6, Schabert et al discloses engagement feature comprising a plurality of teeth.

In regards to claim 7, Schabert et al discloses the locking feature comprising a plurality of grooves, the teeth of the first member configured to intermesh with the grooves of the second member.

In regards to claim 8, Schabert et al discloses the engagement feature comprising a plurality of tabs.

In regards to claim 9, Schabert et al discloses the locking feature comprising a plurality of slots that are configured to receive the tabs of the first member.

In regards to claim 10, Schabert et al discloses several engagement features being substantially equidistantly spaced around the exterior surface of the first member.

In regards to claim 12, Schabert et al the engagement feature including a tapered ramp (20) and a shoulder.

In regards to claim 13, Schabert et al discloses an apex being disposed between the tapered ramp and the shoulder.

In regards to claim 14, Schabert et al discloses apex being a substantially flat surface.

Claims 1-10, 12-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 3207535, Wilson.

In regards to claim 1, in figure 4, Wilson discloses a coupling assembly, comprising a first member (3) having an exterior surface, the exterior surface including at least one engagement feature (10, 11); and a second member (4, 12) having a portion for receiving a portion of the first member, the receiving portion having at least one interior surface that includes at least one locking feature (10, 11) configured to mate with the engagement feature of the first member to substantially prevent rotation of the first member relative to the second member during connection thereto.

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In regards to claim 2, Wilson discloses the engagement feature being defined by at least one protrusion in the exterior surface of the first member, the protrusion extending outward from a base reference point.

In regards to claim 3, Wilson discloses the locking feature being defined by at least one interruption in the interior surface of the receiving portion, the interruption extending outward with respect to the base point.

In regards to claim 4, Wilson discloses the engagement and locking features being received in the corresponding protrusion and interruption of the opposing member to create a radial interference.

In regards to claim 5, Wilson discloses there being a plurality of protrusions and interruptions, the protrusions and the interruptions located on the respective members such that there is at least one orientation, wherein the members may fully engage by way of a mating of the protrusions and the interruptions.

In regards to claim 6, Wilson discloses engagement feature comprising a plurality of teeth.

In regards to claim 7, Wilson discloses the locking feature comprising a plurality of grooves, the teeth of the first member configured to intermesh with the grooves of the second member.

In regards to claim 8, Wilson discloses the engagement feature comprising a plurality of tabs.

In regards to claim 9, Wilson discloses the locking feature comprising a plurality of slots that are configured to receive the tabs of the first member.

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In regards to claim 10, Wilson discloses several engagement features being substantially equidistantly spaced around the exterior surface of the first member.

In regards to claim 12, Wilson the engagement feature including a tapered ramp and a shoulder.

In regards to claim 13, Wilson discloses an apex being disposed between the tapered ramp and the shoulder.

In regards to claim 14, Wilson discloses apex being a substantially flat surface.

In regards to claim 15, Wilson discloses a locking member (17) disposed between the first and second members for substantially locking movement of the first member relative to the second member in an axial direction.

In regards to claim 16, Wilson discloses the first member being sufficiently inserted into the second member, the exterior surface passes through the locking member where, upon further insertion, the locking member being expanded over the apex until it clears the apex whereby, the locking member contracts to a position between the first member and the second member to interconnect the members.

In regards to claim 17, Wilson discloses the receiving portion of the second member including an inwardly facing groove (24) for receiving therein the locking member.

In regards to claim 18, Wilson discloses a release member (col. 2, lines 52-55) moveably mounted on the first member for releasing the first member from the second member.

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In regards to claim 21, Wilson discloses a coupling assembly, comprising a first member having an exterior surface and a retaining formation, the retaining formation including at least one engagement feature; a second member having a portion for receiving a portion of the first member, the second member including at least one locking feature configured to mate with the engagement feature of the first member to substantially prevent rotation of the first member relative to the second member during connection thereto, the receiving portion including an inwardly facing groove configured to receive a locking member; and whereby, when the first member is sufficiently inserted into the second member, the exterior surface passes through the locking member where, upon further insertion, the locking member is expanded over the retaining formation until it clears the retaining formation whereby, the locking member contracts to a position between the first member and the second member to interconnect the members.

In regards to claim 22, Wilson discloses the retaining formation being a portion of the engagement features.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schabert et al in view of US patent 4280723, Moldestad. Schabert et al discloses the

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claimed invention except for several engagement features being non-equidistantly spaced around the exterior surface of the first member. Moldestad teaches several engagement features (38, 40, 42, 44) being non-equidistantly spaced around the exterior surface of the first member (32) so that "the male and female couplings cannot be even partially engaged, unless the first and second patterns match one another in complimentary manner"(col. 2, lines 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate several engagement features with non-equidistantly spaced around the exterior surface of the first member so that the male and female couplings cannot be even partially engaged, unless the first and second patterns match one another in complimentary manner, as taught by Moldestad.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson in view of US patent 4280723, Moldestad. Wilson discloses the claimed invention except for several engagement features being non-equidistantly spaced around the exterior surface of the first member. Moldestad teaches several engagement features (38, 40, 42, 44) being non-equidistantly spaced around the exterior surface of the first member (32) so that "the male and female couplings cannot be even partially engaged, unless the first and second patterns match one another in complimentary manner"(col. 2, lines 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate several engagement features with non-equidistantly spaced around the exterior surface of the first member so that the male

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and female couplings cannot be even partially engaged, unless the first and second patterns match one another in complimentary manner, as taught by Moldestad.

Allowable Subject Matter

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, because it illustrates the current state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9327 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd
February 26, 2003



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670